3mm Phototransistor

MODEL NO : PT264-6B

Features :

- Fast response times
- High photo sensitivity

Description :

- PT264-6B is a high speed and high sensitive silicon NPN phototransistor molder in a standard ϕ3 mm package. The package is an IR filter , spectrally mathch to infrared emitter diode.

Applications :

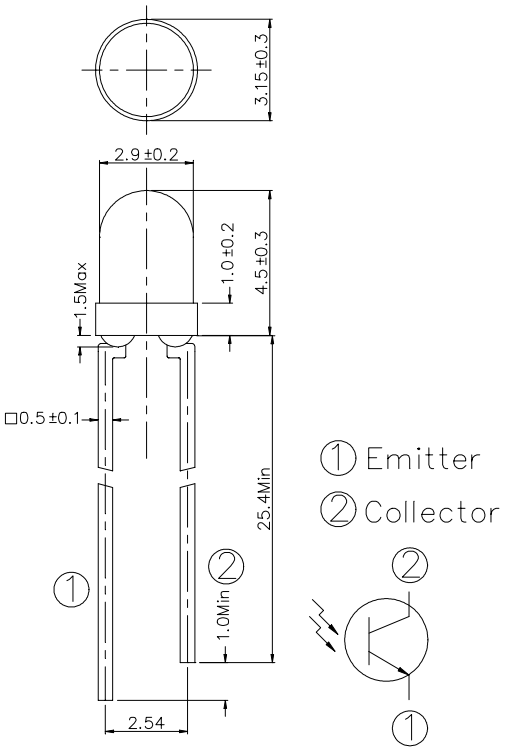
- Optoelectronic switchs
- VCRs ,Video cameras
- Floppy disk drives
- Infrared applied systems

PART NO.	CHIP MATERIAL	LENS COLOR
PT	Silicon	Black

3mm Phototransistor

MODEL NO : PT264-6B

Package Dimension :



Notes :

1.All dimensions are in millimeter.

2.Protruded resin under flange 1.5 mm Max.

3.Lead spacing is measured where the lead emerge from the package.

4.Lens color：Black.

5.Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.

6.These specification sheets include materials protected under copyright of EVERLIGHT corporation . Please don’t reproduce or cause anyone to reproduce them without EVERLIGHT’s consent.

7.When using this product , please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

3mm Phototransistor

MODEL NO : PT264-6B

■ Absolute Maximum Ratings at T_A = 25℃

Parameter	Symbol	Rating	Unit	Notice
Collector-Emitter Voltage	V_{CEO}	30	V	
Emitter-Collector- Voltage	V_{ECO}	5	V	
Collector Current	I_C	20	mA	
Operating Temperature	Topr	-25 ~ +85	℃	
Storage Temperature	Tstg	-40 ~ +85	℃	
Soldering Temperature	Tsol	260	℃	4mm from mold body less than 5 seconds
Power Dissipation at(or below) 25℃ Free Air Temperature	Pc	75	mW	

■ Electronic Optical Characteristics :

Parameter	**Symbol**	**Min.**	**Typ.**	**Max.**	**Unit**	**Condition**
Collector-Emitter Breakdown Voltage	BV_{CEO}	30	----	----	V	I_C=100 μA Ee=0mW/cm^2
Emitter-Collector Breakdown Voltage	BV_{ECO}	5	----	----	V	I_E=100 μA Ee=0mW/cm^2
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	----	----	0.4	V	I_C=2mA Ee=1mW/cm^2
Rise Time	t_r	----	15	----	μS	V_{CE}=5V I_C=1mA R_L=1000Ω
Fall Time	t_f	----	15	----		
Collector Dark Current	I_{CEO}	----	----	100	nA	V_{CE}=20V Ee=0mW/cm^2
On State Collector Current	$I_{C(on)}$	0.7	1.0	----	mA	V_{CE}=5V Ee=1mW/cm^2
Wavelength of Peak Sensitivity	λ_p	----	980	----	nm	----
Rang of Spectral Bandwidth	$\lambda_{0.5}$	----	840---1200	----	nm	----

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■ Typical Electrical/Optical/Characteristics Curves

Fig.1 Collector Power Dissipation vs. Ambient Temperature

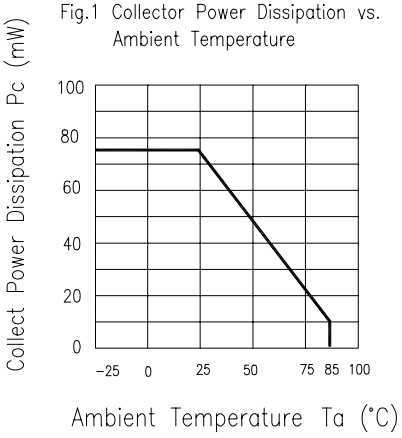


Fig.2 Collector Dark Current vs. Ambient Temperature

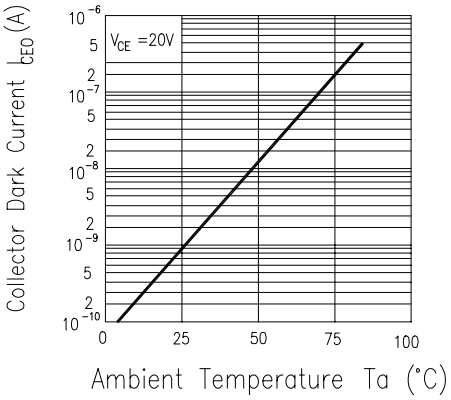


Fig. 3 Relative Collector Current vs. Ambient Temperature

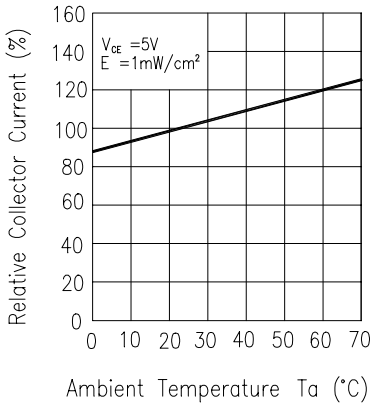


Fig.4 Collector Current vs. Irradiance

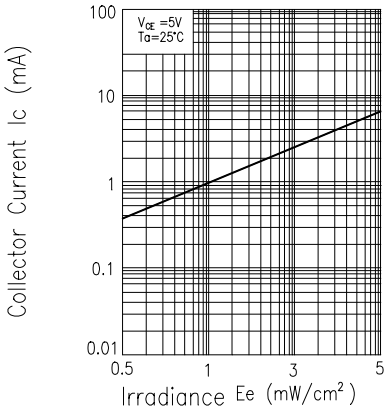
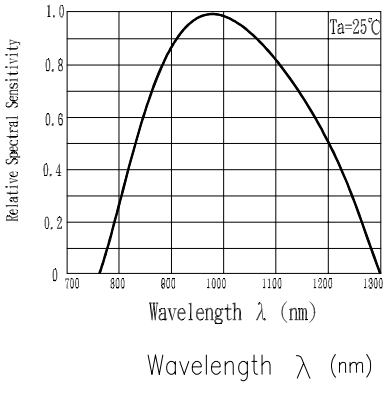
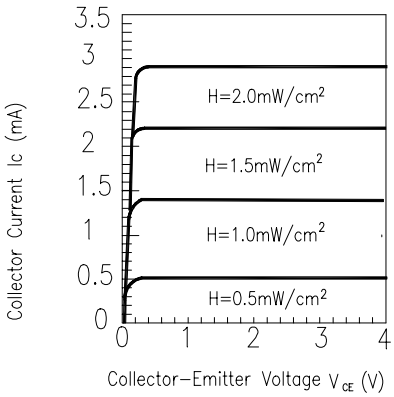


Fig.5 Spectral Sensitivity



Wavelength λ (nm)

Fig.6 Collector Current vs. Collector-Emitter Voltage



3mm Phototransistor

MODEL NO : PT264-6B

■ Reliability Test Item And Condition

The reliability of products shall be satisfied with items listed below.
Confidence level:90%
LTPD:10%

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Failure Judgement Criteria	Ac/Re
1	**Solder Heat**	TEMP : 260℃ ± 5 ℃	5 sec	22 PCs	$I_{c(on)} \leqq L \times 0.8$ L :Lower specification limit	0/1
2	**Temperature Cycle**	H : +85℃ 30 min 5 min L : -55℃ 30 min	50 cycle	22 PCs		0/1
3	**Thermal Shock**	H : +100℃ 5 min 10 sec L : -10℃ 30 min	50 cycle	22 PCs		0/1
4	**High Temperature Storage**	TEMP. : +100℃	1000 hrs	22 PCs		0/1
5	**Low Temperature Storage**	TEMP. : -55℃	1000 hrs	22 PCs		0/1
6	**DC Operating Life**	V_{CE}=5V	1000 hrs	22 PCs		0/1
7	**High Temperature / High Humidity**	85℃ / 85% R.H.	1000 hrs	22 PCs		0/1

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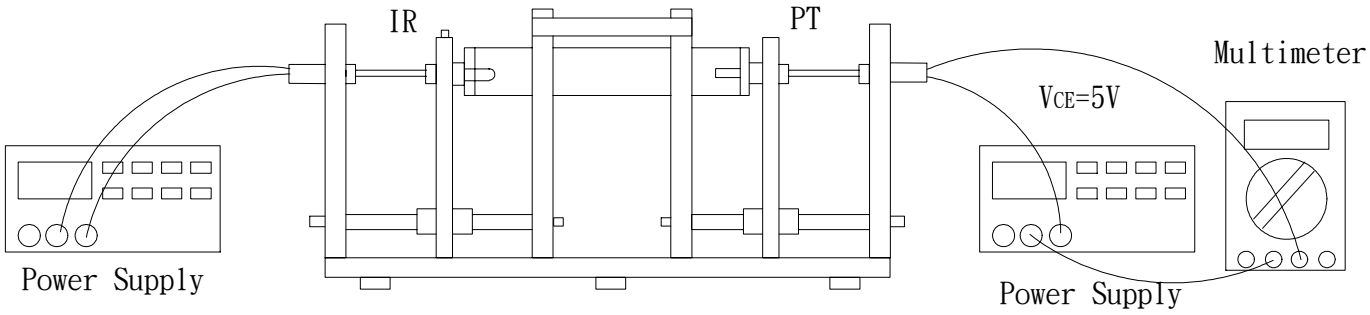
Test Method For On State Collector Current :

Condition : Ee=1mW/cm^2 , V_{CE}=5V

Test Item : Collector Current [$I_{C(on)}$]

Unit : mA



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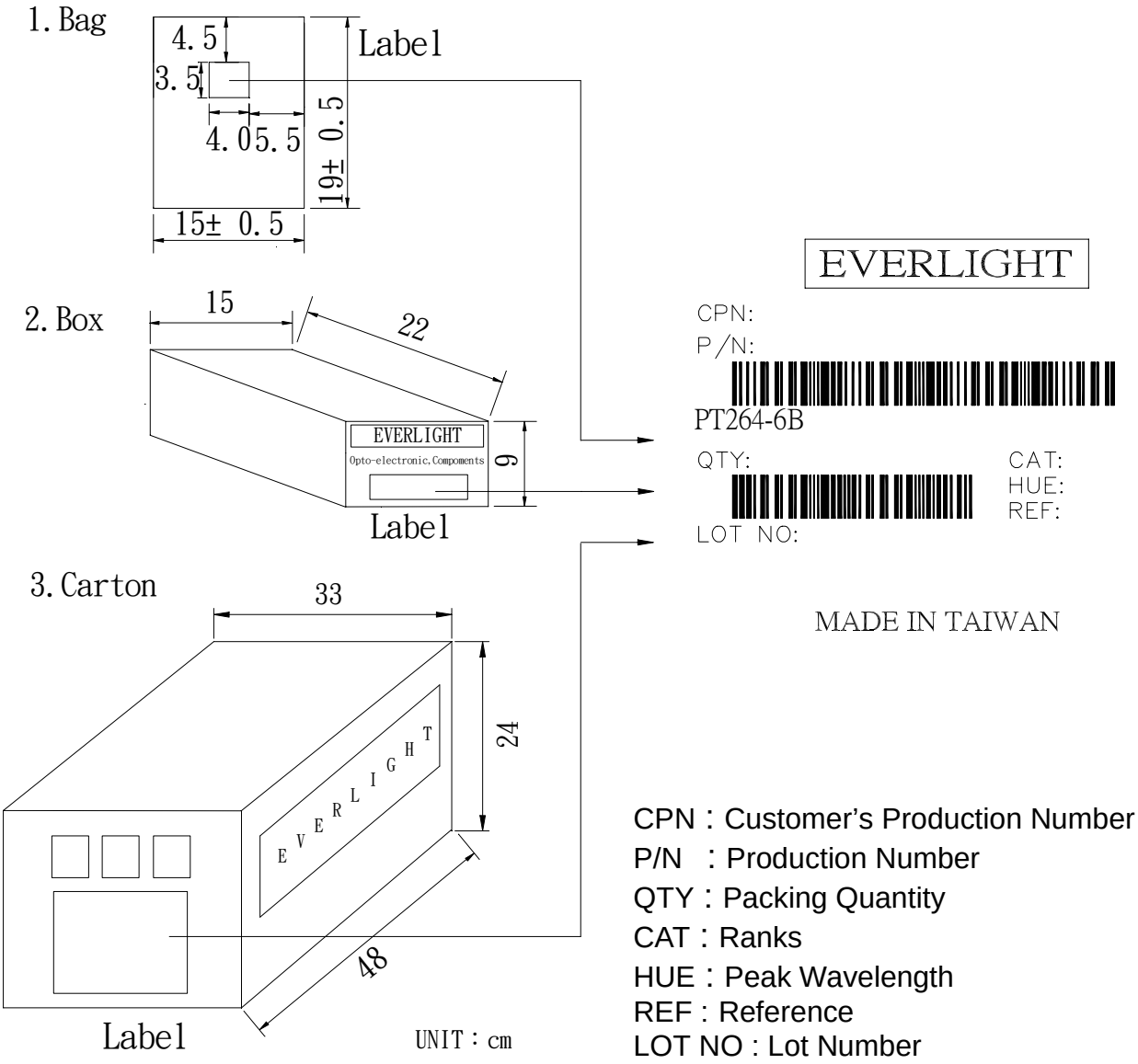
■ Packing Specifications



CPN：Customer's Production Number
P/N ：Production Number
QTY：Packing Quantity
CAT：Ranks
HUE：Peak Wavelength
REF : Reference
LOT NO : Lot Number
MADE IN TAIWAN：Production place

■ Packing Quantity Specification

1. 1000 Pcs/1Bag，4 Bags/1Box
2. 10 Boxes/1Carton